

CLAIMS

We claim:

1. A blend of rubber and a copolymer of an isoolefin, para-alkylstyrene and bromoalkylstyrene, wherein the copolymer comprises at least 9.5 but less than 20 weight percent of styrenics, and at least 0.2 but less than 1 mole percent bromoalkylstyrene.
2. The blend of claim 1 wherein the copolymer comprises from 35 to 65 weight parts per hundred parts of total rubber.
3. The blend of claim 1 wherein said styrenics comprise either para-alkylstyrene, brominated para-alkylstyrene, alpha-methylstyrene, brominated alpha-methylstyrene or combinations thereof.
4. The blend of claim 1 wherein the isoolefin is isobutylene and the bromoalkylstyrene is para-bromomethylstyrene.
5. The blend of claim 1 wherein the rubber is selected from the group consisting of natural rubber, styrene-butadiene rubber, polybutadiene rubber, polyisoprene rubber and combinations thereof.
6. The blend of claim 1 wherein the copolymer comprises from 12 to 17 weight percent styrenics and from 0.4 to 0.8 mole percent bromoalkylstyrene.
7. A blend of from 35 to 65 parts by weight of a rubber selected from the group consisting of natural rubber, styrene-butadiene rubber, polybutadiene rubber, polyisoprene rubber and combinations thereof, and from 35 to 65 parts by weight of a copolymer of isobutylene, from 9.5 up to 20 weight percent para-methylstyrene and from 0.2 to 1 mole percent para-bromomethylstyrene.
8. The blend of claim 7 wherein the copolymer comprises from 12 to 17 weight percent para-methylstyrene and from 0.4 to 0.8 mole percent para-bromomethylstyrene.
9. A tire sidewall comprising the blend of claim 1.

10. A tire sidewall comprising:
a) an outer layer comprising the blend of claim 1; and
b) an inner layer comprising a highly unsaturated rubber or blend of unsaturated rubbers.
11. A multi-layered tire sidewall comprising:
a) an outer layer comprising a blend of an unsaturated rubber and a copolymer of an isoolefin and a para-alkylstyrene, and
b) an inner layer optionally comprising a highly unsaturated rubber or blend of unsaturated rubbers,
wherein the copolymer comprises from 9.5 to 20 weight percent aromatic monomers and from 0.2 to 1.0 mole percent para-bromoalkylstyrene.
12. The blend of claim 1 wherein the quantities of said bromoalkylstyrene and said para-alkylstyrene satisfy the following formula:
- $$X = [1.91 - (0.094 \times Y)] \pm 0.1$$
- wherein "X" is mole percent bromoalkylstyrene and "Y" is weight percent para-alkylstyrene (between the limits of 9.5 to 20 weight percent).
13. The blend of claim 12 wherein said bromoalkylstyrene is para-bromomethylstyrene and said para-alkylstyrene is para-methylstyrene.
14. The blend of claim 13 wherein the mole percent para-bromomethylstyrene is 0.96 and the weight percent para-methylstyrene is 10.
15. The blend of claim 13 wherein the mole percent para-bromomethylstyrene is 0.84 and the weight percent para-methylstyrene is 12.5.

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